L.O - To explore 2 digit by 1 digit division.

success criteria

>To use concrete and written methods to solve division problems.
>To use known multiplication facts to solve division questions.

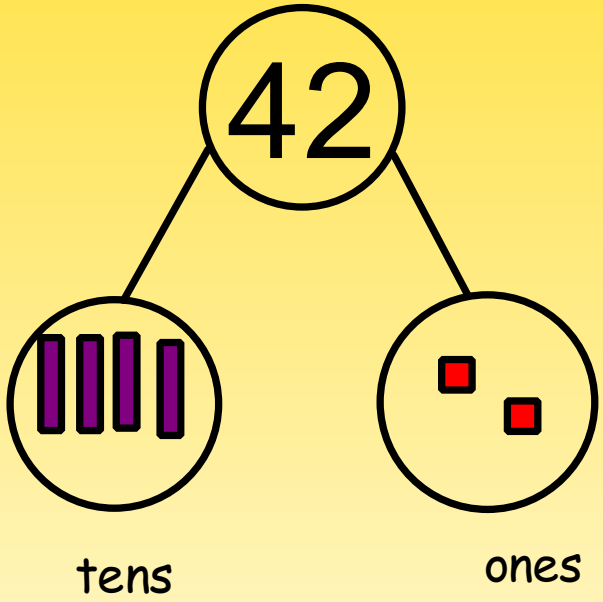
>To partition 2 digit numbers into tens and ones.
>To problems solve and reason with division.

Key vocabulary: division, partition, tens, ones, exchanging, dividing

Insert white rose hub video to explain method

Did you know there are other ways to partition large number into smaller parts? Have a look at the calculation below to see why we need to know this.

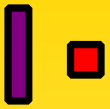
$$42 \div 3 =$$



Now we know that 42 contains 4 tens and 2 ones.

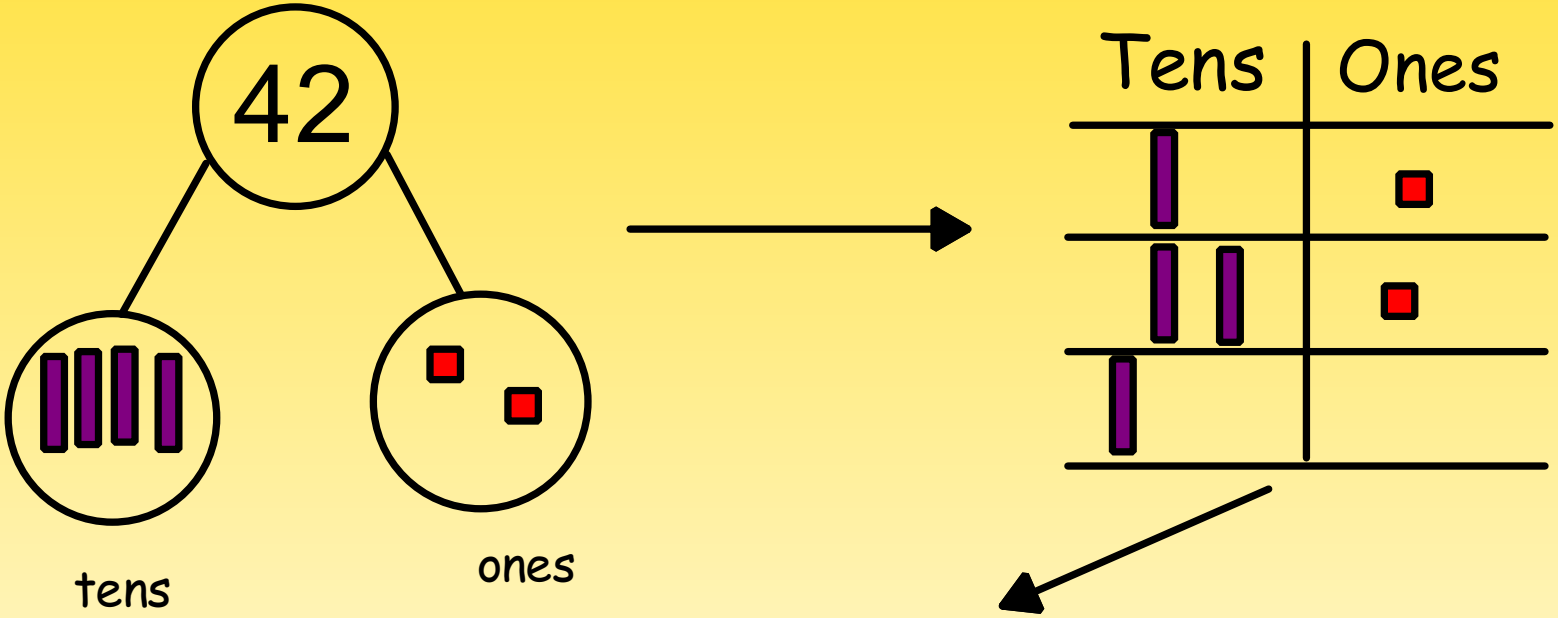
now have a look and try to divide these tens and ones evenly by 3 and share them equally.

what problem are we going to have?



42 ÷ 3 =

What problem are we going to have?

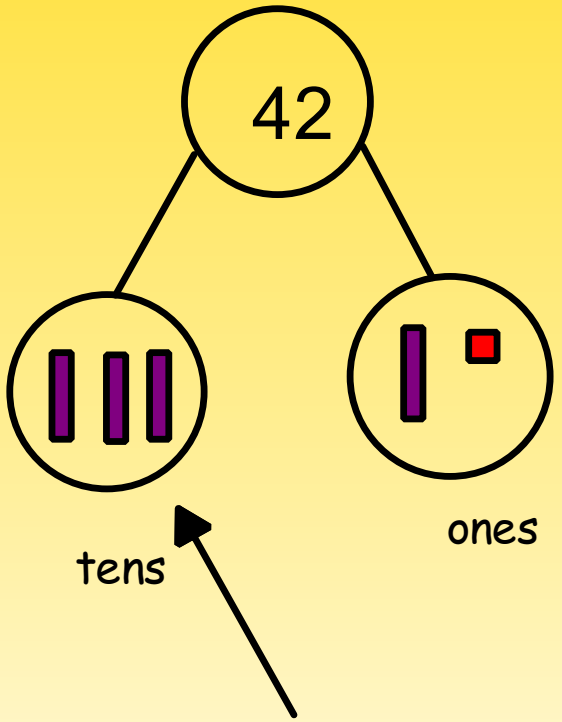


YOU CANNOT SHARE 4 TENS AND 2 ONES EQUALY 3 WAYS.

So how do we do it?

We are going to have to use our times tables knowledge. Because we are dividing by 3 this time we will be using 3 x tables facts.

$$42 \div 3 =$$

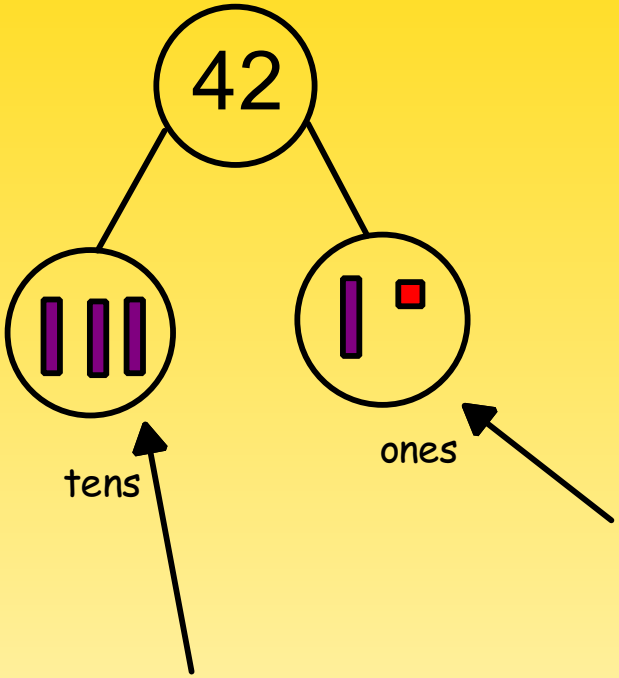


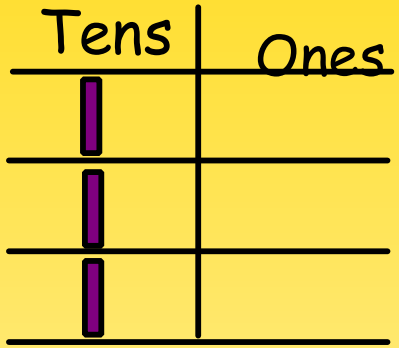
Because we only partitioned 30 this means we are left with 12. 12 is also in the 3 times tables to and therefore we can use this partition to solve our division question.

I know that 3 x 10 is 30. Also because it is in the 3 x tables I know that means is can be easily divided by 3 into equal parts.

So how do we do it?

42 ÷ 3 =

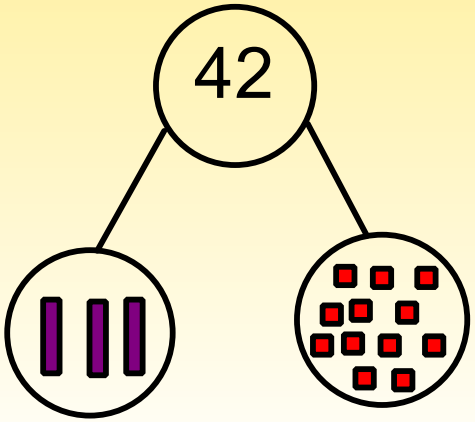


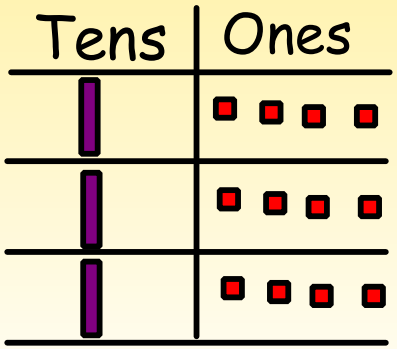


What do we need to do here to easily divide this 12 by 3?

Its easy to divide the tens that make 30 by 3 as you can see in the table.

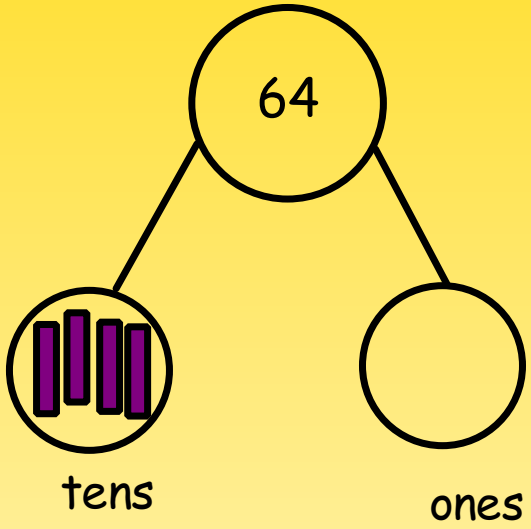
Exchange the ten for ones!





Have a go at this 64 ÷ 4

Step one
partition the bigger number.



Step two
Share the partitioned tens and ones equally into groups

Tens	Ones

Step three
Check the total amount shared equally in each row this will give you your answer.

Tens	Ones

Tens	Ones

64 ÷ 4 = 16

Top Tip - you should always try to partition a number using your 10 x table knowledge. For example when calculating 78 ÷ 6 we know that 6 x 10 is 60, and therefore the remainder is 18 which is 6 x 3.

Fluency:

52 ÷ 4 =

96 ÷ 8=

36 ÷ 3 =

51 ÷ 2 =

Top Tip - you should always try to partition a number using your 10 x table knowledge. For example when calculating 78 ÷ 6 we know that 6 x 10 is 60, and therefore the remainder is 18 which is 6 x 3.

Fluency:

52 ÷ 4 = 13

96 ÷ 8= 12

36 ÷ 3 =12

51 ÷ 3 = 17